Key skills application of number
Adult numeracy
Level 2

Practice Test Paper I

YOU NEED

- This test paper
- An answer sheet

You may NOT use a calculator
You may use a bilingual dictionary

Do NOT open this paper until you are told to do so by the supervisor

There are 40 questions in this test

Total marks available: 40

Try to answer ALL the questions

YOU HAVE 1 HOUR AND 15 MINUTES TO FINISH THE TEST

INSTRUCTIONS

- Make sure your personal details are entered correctly on the answer sheet
- Read each question carefully
- Follow the instructions on how to complete the answer sheet
- At the end of the test hand in the question paper, your answer sheet and all notes to the supervisor

REMEMBER: YOU HAVE 1 HOUR AND 15 MINUTES TO FINISH THE TEST

Note for learners and tutors. This is a practice test that has been put together using questions similar to those that you would find in a "live" Key skills application of number or Adult numeracy test. The layout of the test is also the same as that used for a live test.

Questions 1 and 2 are about numbers of television sets.

The table shows the results of a survey of the number of children and the number of television sets in the households on an estate.

		Number of Children in Household				
		0	1	2	3	4
Number of TV sets in the Household	0	1	0	0	0	1
	1	8	7	15	11	8
	2	6	5	10	3	8
	3	1	2	5	1	1

1. How many households had three children and at least two television sets?

   A 1
   B 3
   C 4
   D 11

2. How many households in the survey had at least 3 children?

   A 10
   B 15
   C 32
   D 33

3. A television set costs £320. The price is reduced by 20% in a sale.

   What is the sale price of the television?

   A £64
   B £256
   C £266
   D £300

4. A packet of fish fingers normally sells for £1.50. There is a 'buy one get one free' offer on them. A customer buys as many as possible with a £5 note.

   How many packets would he get?

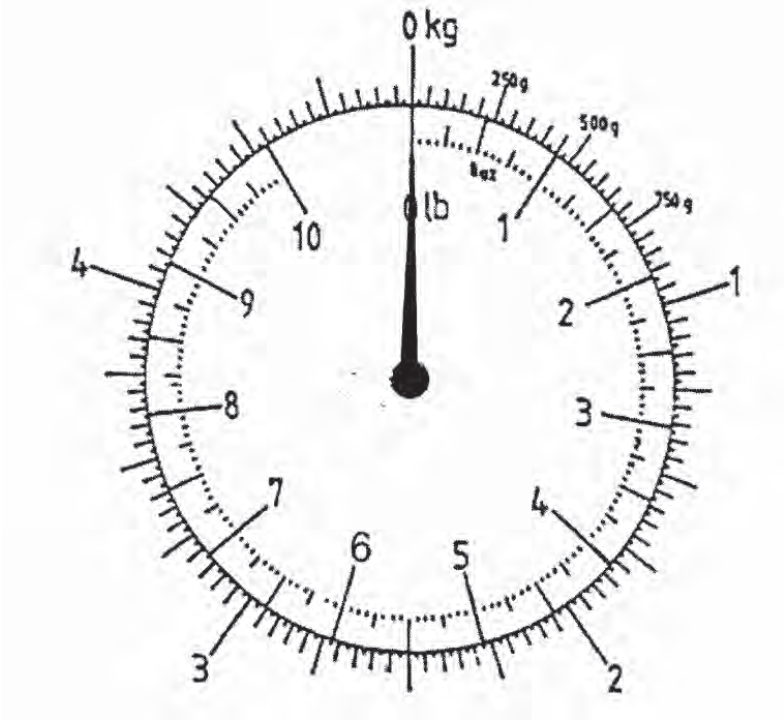
   A 3
   B 6
   C 7
   D 8

5. The diagram shows the dial on a set of parcel scales. The weight can be read in either pounds (lb) or kilograms (kg).

   What is the reading on the dial in kilograms and grams, to the nearest 250 grams?

   A 3kg 15g
   B 3kg 750g
   C 3kg 900g
   D 4kg 250g

6. The diagram shows the dial on an empty set of parcel scales. The weight can be read in either pounds (lb) or kilograms (kg).



A parcel weighs 2.6 kilograms.

What would this be to the nearest quarter pound?

A 6 pounds
B $5\frac{3}{4}$ pounds
C $5\frac{1}{2}$ pounds
D 5 pounds

7. A badminton club with 440 members has several courts. The bookings secretary analyses court usage and notes that the Senior group (over 50 years old) makes up 20% of the membership.

How many club members are in the Senior group?

A 44
B 66
C 88
D 220

8. The Senior group at a tennis club use the courts for $^{3}/_{5}$ of the available time.

   What percentage of the available time is this?

   A 30%
   B 35%
   C 60%
   D 70%

9. Material for dressmaking is sold by the metre. The cost of 5 metres of material is £17.50.

   How much does 8 metres of the same material cost?

   A £3.50
   B £24.50
   C £28.00
   D £35.00

10. A man stands on the bathroom scales with his clothes on. The diagram shows the reading on the scale.

   His clothes weigh 2 kilograms.

   Approximately, how much does he weigh without clothes?

   A 65kg
   B 65.5kg
   C 67.5kg
   D 69.5kg

Questions 11 and 12 are about the cash flow at a fast food outlet.

The table shows a three-month summary of receipts and payments for a fast food outlet.

Cash Flow in £000s				
	July	August	September	Total
Receipts				
Cash from Sales	120.3	40.5	77.2	238.0
Other income	9.2	4.2	6.0	19.4
Totals	129.5	44.7	83.2	257.4
Payments				
Materials from suppliers	51.6	27.0	70.4	149.0
Wages and salaries	13.4	15.0	12.6	41.0
Overheads	23.0	11.0	11.0	45.0
Capital expenditure	6.0	8.0	3.0	17.0
Totals	94.0	61.0	97.0	252.0

11. Which of these methods are checks for the Total Receipts for the three months?

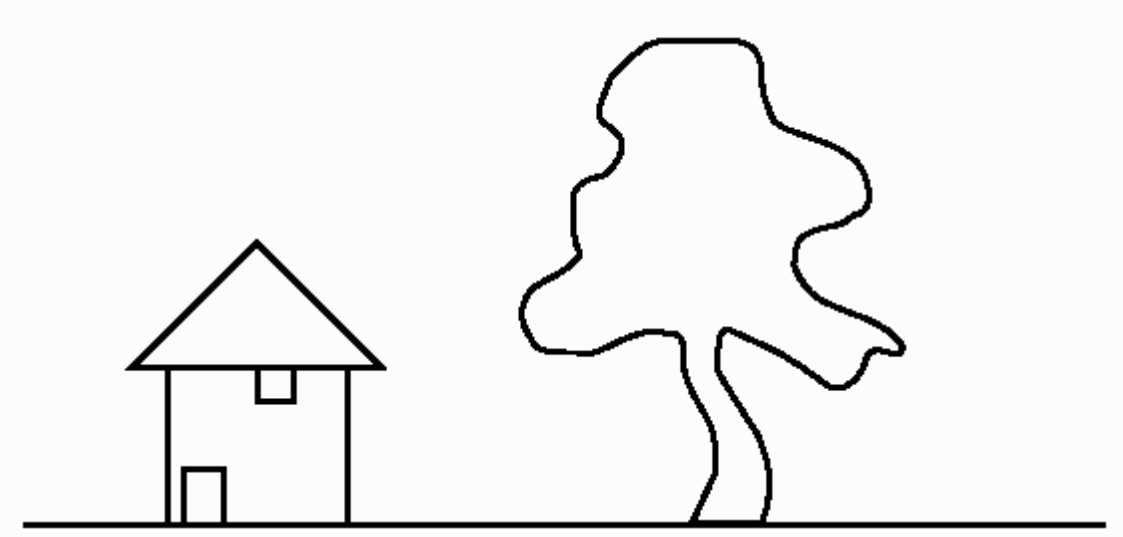
    Method 1: 257.4 - 19.4 = 238.0
    Method 2: 94.0 + 61.0 + 97.0 = 252.0
    Method 3: 120.3 + 40.5 + 77.2 = 238.0
    Method 4: 257.4 - 129.5 - 44.7 = 83.2

    A Methods 1 and 2
    B Methods 2 and 3
    C Methods 3 and 4
    D Methods 1 and 4

12. What was the mean of the Total Payments over the three months?

    A £41 000
    B £45 000
    C £84 000
    D £252 000

13. Mary is concerned about the growth of a large tree near her house. The sketch shows the height of the tree in relation to the height of the house.



The house is 10.1 metres high.

The height of the tree is approximately

A 14m
B 17m
C 25m
D 30m

Questions 14 and 15 are about holiday sales.

A travel agent produces a summary of sales of holiday types for the first six months of a year.

Sales of Holidays

	Beach Holidays	City Breaks	Coach Tours	Flight Only	Total
January	65	47	62	29	203
February	82	48	85	43	258
March	79	37	53	55	224
April	87	59	65	78	289
May	104	30	47	97	278
June	123	19	36	88	266
Totals for 6 months	540	240	348	390	1 518

14. What is the mean monthly sales of Coach Tours?

A 40
B 58
C 65
D 90

15. What is the range of the numbers of different types of holiday sold in March?

A 4
B 24
C 42
D 79

Questions 16 and 17 are about membership at a sports club.

The table shows the number of members of a sports club, by gender over four years.

Year	Number of Members	
	Men	Women
1998	350	150
1999	290	210
2000	280	220
2001	225	275

16. What percentage of the members in 1998 were women?

A 15%
B 30%
C 42%
D 70%

17. What is the ratio of women to men in 2000?

A 9 : 11
B 11 : 9
C 11 : 14
D 14 : 11

Questions 18, 19 and 20 are about travelling times to college.

A survey is made of travelling times to college. The results from one group of 20 students are (in minutes)

25	30	30	30	35	55	25	15	15	30
25	5	35	40	20	35	20	15	20	45

18. What percentage of these journeys are shorter than 17.5 minutes?

A 4
B 20
C 30
D 40

19. What is the mean length of time for a journey?

A 26.5 minutes
B 27.5 minutes
C 28.5 minutes
D 29.5 minutes

20. What is the range of these journey times?

A 5 minutes
B 20 minutes
C 50 minutes
D 55 minutes

21. A car manufacturer produces an owner's handbook for one of its models. The section on lubricating oil recommends the thickness (viscosity) of oil to use for different temperature ranges.

Viscosity Class	Temperature range in °C
SAE 20W-50	-10 to 40
SAE 15W-40	-15 to 40
SAE 15W-50	-15 to 45
SAE 10W-30	-20 to 45

What is the biggest range of temperatures of the oils in the table?

A 25°C
B 30°C
C 65°C
D 75°C

22. A salesman records the registration letter of the cars for sale at his garage. The table shows his results.

Registration letter	**R**	**S**	**T**	**V**	**W**	**X**
Number of cars	**10**	**26**	**21**	**13**	**24**	**26**

What fraction of the cars are either **W** or **X** registration?

A $^{2}/_{6}$

B $^{1}/_{3}$

C $^{5}/_{12}$

D $^{7}/_{12}$

23. A metal cylinder weighs 5 kilograms. When filled with gas it weighs 6 kilograms.

What is the percentage increase in the weight of the cylinder when the gas is added?

A 1%
B 5%
C 16%
D 20%

24. The label on a can of low calorie soup gives this nutritional information.

Typical Values	Per 100g	Per Can
Energy	27kcal	108kcal
Protein	0.8g	3.2g
Carbohydrate	5.6g	22.4g
Fat	0.2g	0.8g
Fibre	0.9g	3.6g
Sodium	0.3g	1.2g

How much carbohydrate is there in the soup compared to protein?

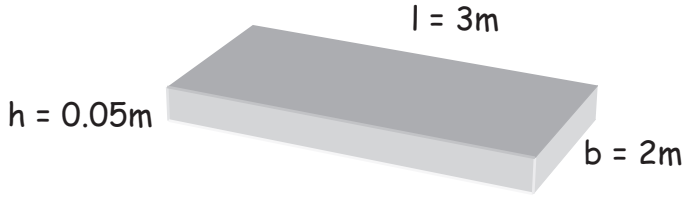
A 5 times as much
B 5.6 times as much
C 7 times as much
D 8 times as much

25. A gardener buys a 20-kilogram bag of fertiliser. The label states that the recommended coverage is 2 kilograms per square metre. She uses the fertiliser on a garden border that is 2.5 metres wide.

Which calculation shows the length of border she can cover using one bag?

A $20 - (2 + 2.5)$
B $(20 \div 2) \div 2.5$
C $(20 \div 2) \times 2.5$
D $(20 \div 2.5) \times 2$

26. A builder is laying a concrete floor in a house. The diagram shows the dimensions of the concrete slab.



The formula for volume = lbh

What is the volume of concrete required?

A $0.3m^3$
B $3m^3$
C $5.05m^3$
D $6m^3$

27. To convert degrees Celsius (°C) to degrees Fahrenheit (°F), a weather forecaster uses the formula: $C = (F - 32) \times {}^{5}/_{9}$

The temperature in Las Vegas is 91 degrees Fahrenheit.

What is the temperature in degrees Celsius, to the nearest degree?

A 26°C
B 30°C
C 32°C
D 33°C

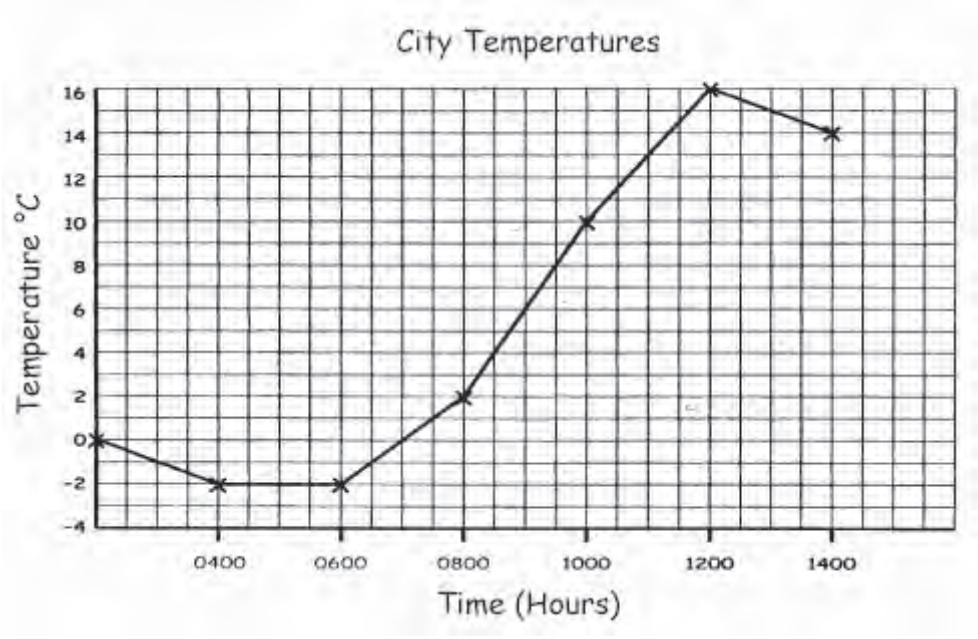
28. The temperature in Alaska is 10 degrees Fahrenheit.

Use the formula $C = (F-32) \times {}^{5}/_{9}$

What is the temperature in degrees Celsius, to the nearest degree?

A -22°C
B -12°C
C 12°C
D 22°C

29. The graph shows the temperatures in a city on one day.



What is the best estimate of the temperature at 8:30am?

A 2°C
B 4°C
C 6°C
D 9.5°C

30. The table shows the mid-day temperatures in 10 places on one day.

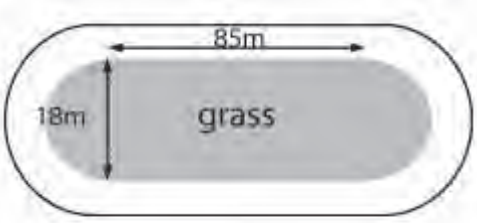
Place	Mid-dayTemperature in °C
Athens	16
Berlin	-5
Blackpool	5
Cardiff	3
Geneva	-1
Jersey	4
Vienna	0
Moscow	-12
Paris	1
Zurich	-1

On the next day, the mid-day temperature in Moscow decreases by 6°C. The mid-day temperature in Berlin increases by 1°C.

How many degrees warmer at mid-day is Berlin than Moscow on this day?

A 0°C
B 12°C
C 14°C
D 22°C

31. The diagram shows a running track with semi-circular ends.



The track is the same width all the way round. The area of a circle is given approximately by the formula: Area = 3 x (radius)^2

Which of these calculations gives the area in square metres of the central section of grass?

A $85 \times 18 + \frac{1}{2} \times 3 \times 9^2$
B $85 \times 18 + 3 \times 18^2$
C $85 \times 18 + \frac{1}{2} \times 3 \times 18^2$
D $85 \times 18 + 3 \times 9^2$

32. Here are the lengths of twenty fish in centimetres:

20, 15, 17, 13, 19, 26, 30, 14, 18, 21, 10, 14, 17, 13, 15, 19, 28, 8, 27,15

What is the median length of the fish?

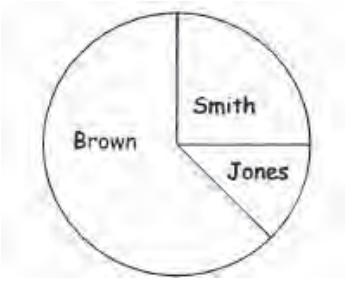
A 15cm
B 16cm
C 17cm
D 17.5cm

33. At a travel agent the exchange rate for buying back euros is 1.62 euros for £1. No commission is charged. A traveller has 800 euros to change back into pounds.

Which of these is closest to the amount she should receive?

A about £320
B about £400
C about £500
D about £600

34. The pie chart shows the votes for three people in a local election.



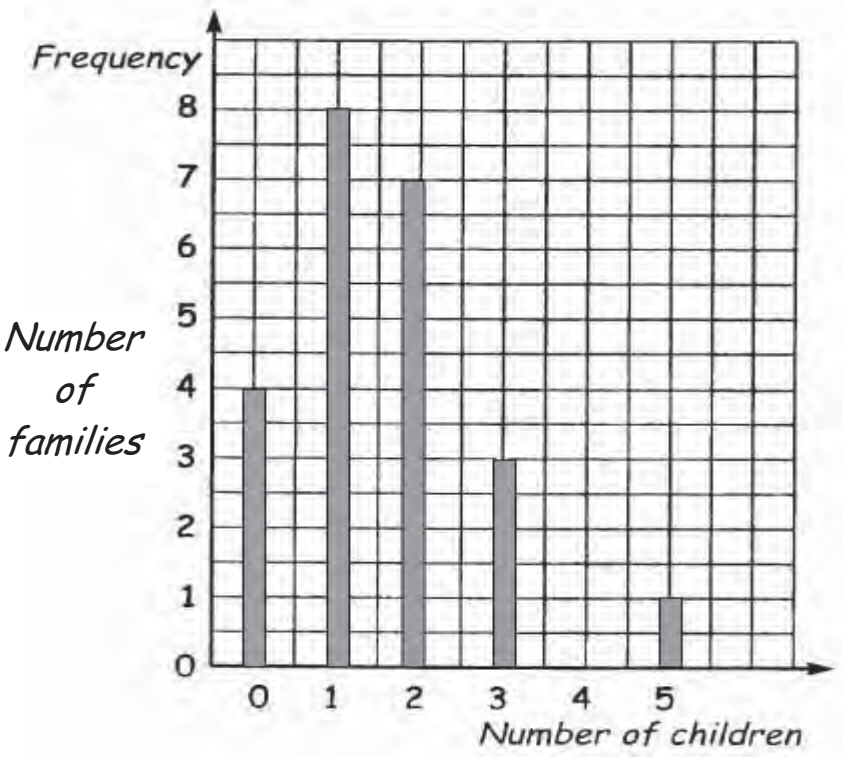
In total 280 people voted.

How many voted for Smith?

A 25
B 70
C 80
D 90

Questions 35 and 36 are about this graph.

A researcher asks a question about the number of children different families have. The chart shows her results for one day.



35 How many families had more than 1 but fewer than 5 children?

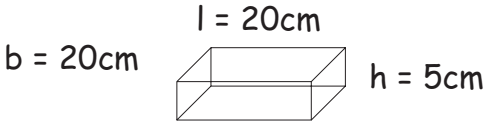
A 10
B 18
C 19
D 23

36 What is the median number of children in the families?

A 1
B 2
C 2.5
D 3

37. A baker makes cakes. Each cake fits into a rectangular tin.

This diagram shows the cake tin



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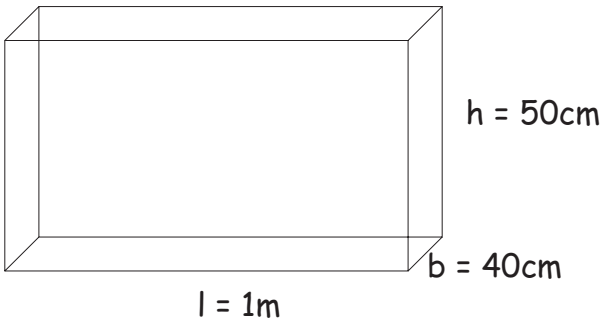
Diagrams not to scale

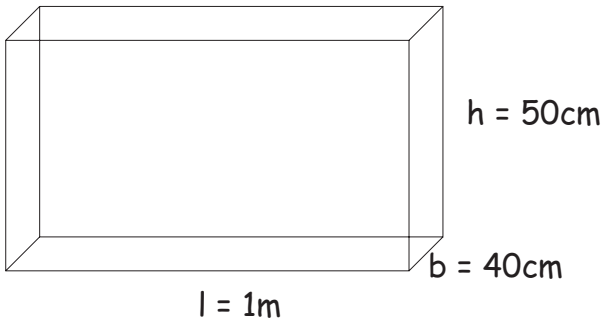
He packs the tins in a box with the internal dimensions show below.



The maximum number of tins the baker can pack in a box is

A 10
B 50
C 100
D 200

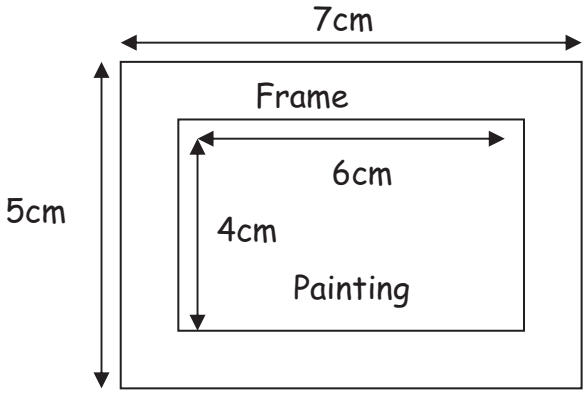
38. Using the formula : Volume = lbh



What would the volume of this box be?

A 190cm^3
B 200cm^3
C 20 000cm^3
D 200 000cm^3

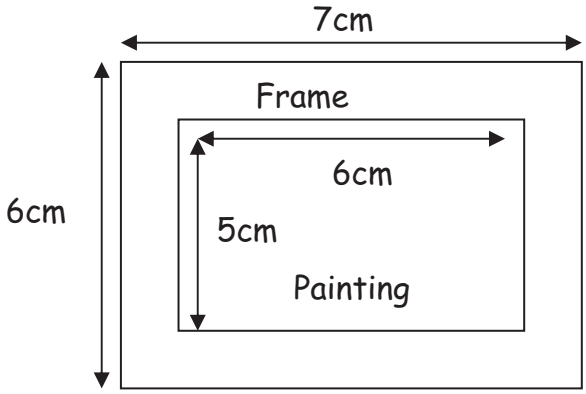
39. The diagram below shows a painting. The scale is 1 : 20



What are the dimensions of the painting (excluding the frame)?

A 80cm x 120cm
B 80cm x 140cm
C 100cm x 120cm
D 100cm x 140cm

40. The diagram below shows a painting. The scale is 1 : 20



A picture framer makes another frame of the same size.

The wood for making the frames is available in 2.2m lengths.

What is the minimum number of lengths of wood he needs to make the frame?

A 1
B 2
C 3
D 4

End of test